

# County of San Diego

Department of Environmental Health and Quality Land and Water Quality Division Beach and Bay Monitoring Program



www.sdcdehq.org | www.sdbeachinfo.com

For the current status on coastal water quality in San Diego County, call **(619) 338-2073** or visit <a href="https://www.sdbeachinfo.com">www.sdbeachinfo.com</a>.

## **DEFINITIONS**



## **CLOSURE:**

A water contact Closure is issued when a sewage spill or chemical spill impacts ocean or bay waters. Sewage/chemical contaminated water may contain chemicals or human pathogens that can cause ill health. The Department of Environmental Health & Quality (DEHQ) directs beach users to avoid contact with ocean and bay waters in the closure area.



## **WARNING:**

A warning is issued when water sample results exceed State health standards due to high bacteria levels and there are environmental factors (i.e. south swell conditions – transboundary flows) indicating waters/currents are pushing bacteria from the international border north. **DEHQ directs beach users to avoid water contact at beaches posted with orange and blue warning signs.** Beaches with warnings are sampled daily to monitor all environmental factors.



## **ADVISORY:**

Advisories are issued to warn beach users as follows:

- A Bacterial Exceedance Advisory is issued when ocean or bay water sample results exceed State health standards due to high bacteria levels.
- A Precautionary Advisory is issued when DEHQ determines there is a potential for elevated bacteria due to dredging, lagoon opening or other sources in the vicinity of coastal areas.

**DEHQ** directs beach users to avoid contact with ocean and bay waters in the advisory area. Beach water quality monitoring uses bacterial indicators to test for the presence of possible pathogens. The bacterial indicators are not specific to humans, and may be from other sources including wildlife, pets, soils, and rotting vegetation like kelp. Ocean or bay waters with elevated bacterial indicators may contain human pathogens that can cause illnesses.

# **GENERAL RAIN ADVISORY FOR ALL COASTAL WATERS:**

Additional signs not posted

A General Rain Advisory is issued when significant rain ( $\sim$ 0.2 inches) causes urban runoff to enter the ocean and bays. This contamination causes bacteria to increase significantly in ocean and bay waters, especially near storm drains, rivers, and lagoon outlets. **DEHQ directs beach users to avoid contact with ocean and bay waters for 72 hours after rainfall ends.** While many storm drains, rivers, and lagoon outlets are permanently posted with white metal warning signs, additional warning signs are not posted for General Rain Advisories.



# **OUTFALL WARNING SIGNS:**

Outfall warning signs are posted at many storm drains, rivers, and lagoon outlets as bacteria levels can significantly increase due to urban runoff. **DEHQ directs beach users to avoid contact with runoff and ocean or bay waters within 75 feet of runoff.** 

TO REPORT ILLEGAL DISCHARGES TO STORM DRAINS CALL: (888) 846-0800

## Recreational Water Monitoring Program

Where is it safe to swim? Southern California beaches are generally clean and safe for recreation as indicated by water quality monitoring. Signs are posted warning not to swim at locations where water does not meet standards or sewage contamination has occurred. Stormwater runoff can make beaches unsuitable for swimming or surfing for at least 72 hours after rain. Beaches impacted by urban runoff from storm drains, rivers and lagoon outlets should be avoided.

#### What do we test for? Enterococcus bacteria

What is it? Indicator of possible disease-producing bacteria/viruses/protozoa (also known as pathogens)

## Where does it come from?

Environment-soils, decaying vegetation

Animal wastes-birds, dogs, cats, seals

Storm water/urban runoff - sources vary

Humans-sewage, diapers, shedding from body

What are the standards?

Single Sample standards: Enteroccoci: 1,413 copies per 100 ml. sample

ddPCR Method

Single Sample standards:

Culture Method Total Coliforms: 10,000 organisms per 100 ml. sample

Fecal Coliforms: 400 organisms per 100-ml. sample Enteroccoci: 104 organisms per 100 ml. sample Fecal/Total ratio: if total coliforms >1,000 & ratio > 0.1

30-day geomean standards: Total Coliforms: 1,000 organisms per 100 ml. sample (5 or more samples in 30 days)

Fecal Coliforms: 200 organisms per 100-ml. sample Enterococci: 35 organisms per 100-ml. sample

What pathogens may be found in swimming waters contaminated with sewage or urban runoff?

Bacteria		Viruses	
E. Coli	Gastroenteritis	Rotavirus	Gastroenteritis
Salmonella typhi	Typhoid fever	Norwalk (Norovirus)	Gastroenteritis
Other Salmonella Species	Various enteric fevers (also called paratyphoid), gastroenteritis, septicemia (generalized infections in the bloodstream)	Coxsackie virus (some strains)	Various including severe respiratory disease, fever, rashes, paralysis, meningitis
Shigella dysenteriae and other species	Bacterial dysentery	Adenovirus	Respiratory and gastrointestinal infections
Vibrio cholera	Cholera	Echovirus	Various, similar to Coxsackie virus
Protozoa (Intestinal Parasites)		Polio Virus	Poliomyelitis
Cryptosporidium	Diarrhea- Cryptosporidiosis	Hepatitis A	Infectious hepatitis (liver malfunction), also may affect kidneys and spleen
Giardia lamblia	Diarrhea- Giardiasis		

# What is the recent water quality trend at each location based upon the monitoring data?

Visit the Heal the Bay webpage at <a href="www.healthebay.org">www.healthebay.org</a> and select *Blog* then *Beach Report Card*. Visit the Safe to Swim <a href="mailto:map">map</a> for interactive beach water sample results based on sample sites.

## What beaches are currently posted?

Call the San Diego County Beach and Bay Status Report for an update of current posted beaches at (619) 338-2073 or visit www.sdbeachinfo.com.